



March 23, 2009

Charles L.A. Terreni  
Chief Clerk and Administrator  
South Carolina Public Service Commission  
Post Office Drawer 11649  
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.  
Power Plant Performance Report  
Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed is the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of February 2009.

Sincerely,

*Len S. Anthony (by dhs)*

Len S. Anthony  
General Counsel  
Progress Energy Carolinas, Inc.

LSA/dhs  
Enclosures  
45612

c: John Flitter (ORS)

February 2009

The following units had no off-line outages during the month of February:

Brunswick Unit 1

Harris Unit 1

Robinson Unit 2

Mayo Unit 1

Roxboro Unit 3

Roxboro Unit 4

Brunswick Unit 2

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 1:37 on February 28, and remained offline for the remainder of the month. The unit was offline for 22 hours and 23 minutes for the month of February.
- B. Cause: Scheduled Refueling Outage
- C. Explanation: The unit was taken out of service for a scheduled refueling outage. In addition to refueling, required maintenance and inspections are being carried out during this outage.
- D. Corrective Action: Planned outage activities were in progress at the end of February.

Roxboro Unit 2

Full Forced Outage

- A. Duration: The unit was taken out of service at 12:54 on February 7, and was returned to service at 9:53 on February 11, a duration of 92 hours and 59 minutes.
- B. Cause: Waterwall Tube Leak
- C. Explanation: The unit was taken out of service to investigate and repair a tube leak in the waterwall section of the boiler.
- D. Corrective Action: Corrective maintenance was performed to repair the waterwall tube leak, and the unit was returned to service.

	Month of February 2009		Twelve Month Summary		See Notes*
MDC	938 MW		938 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	630,842 MWH		7,017,464 MWH		2
Capacity Factor	100.08 %		85.40 %		
Equivalent Availability	97.47 %		83.97 %		
Output Factor	100.08 %		100.61 %		
Heat Rate	10,335 BTU/KWH		10,391 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	1,148,956	13.98	3
Partial Scheduled	422	0.07	56,751	0.69	4
Full Forced	0	0.00	93,206	1.13	5
Partial Forced	15,533	2.46	44,810	0.55	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	630,336		8,216,880		8

\* See 'Notes for Nuclear Units' filed with the January 2009 report.

\*\* Gross of Power Agency

	Month of February 2009		Twelve Month Summary		See Notes*
MDC	920 MW		934 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	604,133 MWH		7,786,713 MWH		2
Capacity Factor	97.72 %		95.15 %		
Equivalent Availability	95.45 %		94.70 %		
Output Factor	101.08 %		99.21 %		
Heat Rate	10,524 BTU/KWH		10,612 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	20,592	3.33	20,592	0.25	3
Partial Scheduled	6,095	0.99	31,748	0.39	4
Full Forced	0	0.00	314,426	3.84	5
Partial Forced	1,416	0.23	96,954	1.18	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	618,240		8,183,300		8

\* See 'Notes for Nuclear Units' filed with the January 2009 report.

\*\* Gross of Power Agency

	Month of February 2009		Twelve Month Summary		See Notes*
MDC	900 MW		900 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	624,890 MWH		7,803,719 MWH		2
Capacity Factor	103.32 %		98.98 %		
Equivalent Availability	100.00 %		97.08 %		
Output Factor	103.32 %		101.88 %		
Heat Rate	10,641 BTU/KWH		10,775 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	0	0.00	0	0.00	3
Partial Scheduled	0	0.00	1,114	0.01	4
Full Forced	0	0.00	224,235	2.84	5
Partial Forced	0	0.00	8,939	0.11	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	604,800		7,884,000		8

\* See 'Notes for Nuclear Units' filed with the January 2009 report.

\*\* Gross of Power Agency

	Month of February 2009		Twelve Month Summary		See Notes*
MDC	710 MW		710 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	513,513 MWH		5,416,831 MWH		2
Capacity Factor	107.63 %		87.09 %		
Equivalent Availability	100.00 %		83.20 %		
Output Factor	107.63 %		103.70 %		
Heat Rate	10,434 BTU/KWH		10,765 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	748,860	12.04	3
Partial Scheduled	0	0.00	45,471	0.73	4
Full Forced	0	0.00	247,080	3.97	5
Partial Forced	0	0.00	3,512	0.06	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	477,120		6,219,600		8

\* See 'Notes for Nuclear Units' filed with the January 2009 report.



	Month of February 2009		Twelve Month Summary		See Notes*
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MDC	742 MW		742 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	363,912 MWH		4,107,726 MWH		2
Capacity Factor	72.98 %		63.20 %		
Equivalent Availability	100.00 %		95.40 %		
Output Factor	72.98 %		65.24 %		
Heat Rate	10,442 BTU/KWH		10,705 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	0	0.00	81,830	1.26	3
Partial Scheduled	0	0.00	98,867	1.52	4
Full Forced	0	0.00	79,381	1.22	5
Partial Forced	0	0.00	38,927	0.60	6
Economic Dispatch	134,712	27.02	2,093,189	32.20	7
Possible MWH	498,624		6,499,920		8

\* See 'Notes for Fossil Units' filed with the January 2009 report.

\*\* Gross of Power Agency

	Month of February 2009		Twelve Month Summary		See Notes*
MDC	662 MW		670 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	333,245 MWH		4,527,032 MWH		2
Capacity Factor	74.91 %		77.19 %		
Equivalent Availability	83.95 %		90.15 %		
Output Factor	86.94 %		85.33 %		
Heat Rate	8,876 BTU/KWH		9,015 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	61,555	13.84	392,268	6.69	3
Partial Scheduled	9,531	2.14	44,449	0.76	4
Full Forced	0	0.00	110,759	1.89	5
Partial Forced	336	0.08	30,265	0.52	6
Economic Dispatch	40,198	9.04	760,444	12.97	7
Possible MWH	444,864		5,864,820		8

\* See 'Notes for Fossil Units' filed with the January 2009 report.

	Month of February 2009		Twelve Month Summary		See Notes*
MDC	695 MW		703 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	307,591 MWH		4,084,094 MWH		2
Capacity Factor	65.86 %		66.29 %		
Equivalent Availability	87.21 %		89.02 %		
Output Factor	65.86 %		71.34 %		
Heat Rate	10,526 BTU/KWH		11,077 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	420,474	6.82	3
Partial Scheduled	45,860	9.82	112,320	1.82	4
Full Forced	0	0.00	11,996	0.19	5
Partial Forced	13,882	2.97	132,581	2.15	6
Economic Dispatch	99,707	21.35	1,400,175	22.73	7
Possible MWH	467,040		6,161,200		8

\* See 'Notes for Fossil Units' filed with the January 2009 report.

	Month of February 2009		Twelve Month Summary		See Notes*
MDC	698 MW		698 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	337,522 MWH		4,389,993 MWH		2
Capacity Factor	71.96 %		71.80 %		
Equivalent Availability	92.44 %		97.42 %		
Output Factor	71.96 %		73.95 %		
Heat Rate	10,848 BTU/KWH		10,536 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	60,866	1.00	3
Partial Scheduled	0	0.00	33,487	0.55	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	35,467	7.56	63,533	1.04	6
Economic Dispatch	96,067	20.48	1,566,602	25.62	7
Possible MWH	469,056		6,114,480		8

\* See 'Notes for Fossil Units' filed with the January 2009 report.

\*\* Gross of Power Agency

Plant	Unit	Current MW Rating	January 2008 - December 2008	February 2009	January 2009 - February 2009
Asheville	1	191	67.84	77.98	82.32
Asheville	2	185	64.83	60.85	69.97
Cape Fear	5	144	69.98	75.41	80.78
Cape Fear	6	172	61.62	50.87	60.77
Lee	1	74	62.88	34.88	47.64
Lee	2	77	50.49	46.53	43.54
Lee	3	246	38.21	57.11	59.80
Mayo	1	742	62.59	72.98	76.97
Robinson	1	174	65.88	62.59	67.64
Roxboro	1	369	69.79	83.65	87.55
Roxboro	2	662	78.24	74.91	85.44
Roxboro	3	695	66.00	65.86	74.96
Roxboro	4	698	70.32	71.96	76.72
Sutton	1	93	46.46	38.39	34.90
Sutton	2	104	55.49	33.11	38.80
Sutton	3	403	56.73	42.46	42.83
Weatherspoon	1	48	42.83	0.00	16.53
Weatherspoon	2	49	41.04	22.59	27.75
Weatherspoon	3	75	56.58	24.39	27.53
Fossil System Total		5,201	64.48	64.32	70.08
Brunswick	1	938	85.33	100.08	101.64
Brunswick	2	920	95.43	97.72	99.84
Harris	1	900	98.94	103.32	103.48
Robinson Nuclear	2	710	87.02	107.63	107.63
Nuclear System Total		3,468	91.90	101.84	102.87
Total System		8,669	75.45	79.33	83.20

Amended SC Fuel Rule  
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of  $\geq 92.5\%$  during the 12 month period under review. For the test period April 1, 2008 through February 28, 2009, actual period to date performance is summarized below:

Period to Date: April 1, 2008 to February 28, 2009

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period	A = 25,863,134 MWH
B. Total number of hours during SCPSC test period	B = 8,017 hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C = 3,485 MW for 2008 3,468 MW for 2009
D. Reasonable nuclear system reductions (see page 2)	D = 2,569,077 MWH
A. SC Fuel Case nuclear system capacity factor: $[(A + D) / (B + C)] * 100 = 101.9\%$	

NOTE:

If Line Item E  $> 92.5\%$ , presumption of utility's minimum cost of operation.

If Line Item E  $< 92.5\%$ , utility has burden of proof of reasonable operations.

*Note: Brunswick 2 MDC value was decreased by 17 MW, effective 12/31/08, primarily reflecting the impact of changes associated with calculation methods (NERC requires annual evaluation of environmental and operational parameters; former process used three to five-year average), environmental monitoring and compliance, and the impact of equipment degradation.*

Amended SC Fuel Rule  
Nuclear System Capacity Factor Calculation  
Reasonable Nuclear System Reductions  
Period to Date: April 1, 2008 to February 28, 2009

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC (April - December 2008)	938 MW	937 MW	900 MW	710 MW	3,485 MW
Unit MDC (January - February 2009)	938 MW	920 MW	900 MW	710 MW	3,468 MW
Reasonable refueling outage time (MWH)	644,015	20,593	0	732,791	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	240,417	287,000	229,209	271,491	
Reasonable coast down power reductions (MWH)	0	5,239	0	9,720	
Reasonable power ascension power reductions (MWH)	42,784	31,466	0	21,070	
Prudent NRC required testing outages (MWH)	3,866	23,271	0	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	6,145	0	0	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	931,082	373,714	229,209	1,035,072	
Total reasonable outage time exclusions [carry to Page 1, Line D]					2,569,077